L9 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2001:228838 CAPLUS
DN 134:254016
TI Method and device for utilizing heat in the production of 1,2-dichloroethane by the direct chlorination of ethylene
IN Motz, Joachim
PA Krupp Uhde G.m.b.H., Germany
SO PCT Int. Appl., 19 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001021564	A1	20010329	WO 2000-EP8963	20000914
	W: JP, NO, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	DE 10037323	A1	20010412	DE 2000-10037323	20000729
	EP 1214279	A1	20020619	EP 2000-966000	20000914
	EP 1214279	B1	20040526		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
	JP 2003509480	T2	20030311	JP 2001-524946	20000914
	AT 267788	E	20040615	AT 2000-966000	20000914
	NO 2002001393	A	20020320	NO 2002-1393	20020320
	US 6693224	B1	20040217	US 2002-70842	20020522
	US 2004059166	A1	20040325	US 2003-670970	20030925
PRAI	DE 1999-19945355	A	19990922		
	DE 2000-10037323	A	20000729		
	WO 2000-EP8963	W	20000914		
	US 2002-70842	A1	20020522		

AB A method for the production of 1,2-dichlorethane (I) by direct chlorination using chlorine and ethene in which, despite low reaction temps. during direct chlorination, reaction heat produced is nevertheless used. Vaporous I obtained in a direct chlorination reactor is compressed and transported to heat exchangers where heat is given off by the I. A turbocompressor, for compressing, is arranged directly after the direct chlorination reactor.

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1993:605874 CAPLUS
DN 119:205874
TI Recovery of heat from 1,2-dichloroethane vapors
IN Winhold, Michael; Perkow, Helmut; Link, Gerhard; Schwarzmaier, Peter; Krumboeck, Reinhard; Kuehn, Wenzel
PA Hoechst A.-G., Germany
SO Ger. Offen., 5 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 4131576	A1	19930325	DE 1991-4131576	19910923
PRAI	DE 1991-4131576		19910923		

AB In the title process, which recovers the heat of direct chlorination at low temps. and suppresses cracking, the heat of chlorination of C2H4 is used in the evaporator of the high-boiler separation and part of the dichloroethane vapors is fed to a vacuum evaporator, part to a condenser, and part to a compressor and then the evaporator of the dewatering stage, optionally with part of the compressed gas being fed to the evaporator of the HCl stripper. A flow diagram of the process is included.

L15 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1969:523504 CAPLUS
DN 71:123504
TI Oxychlorination of hydrocarbons
IN Suzuki, Yoshitaka; Takenoue, Atsushi
PA Toa Gosei Chemical Industry Co., Ltd.
SO Ger. Offen., 21 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 1805698		19690807	DE 1968-1805698	19681028
	FR 1594693			FR	
PRAI	JP		19671101		

AB Unreacted HCl is recovered by absorption in water from the gaseous reaction products and by distillation from the aqueous acid formed to improve oxychlorination of hydrocarbons. Thus, C2H4 0.11, air 0.29, HCl and recovered HCl 0.24 kg. mole/hr., and recycled gas [mostly (0.66 kg. mole/hr.) N] are each compressed, mixed, and the mixture is led into a glass-lined reactor over a catalyst of Cu, K, and Mo chlorides on diatomaceous earth. At 280-320° and 2.7-3.5 kg./cm.2, a mixture of C2H4Cl2 0.1, water vapor 0.12, and N 0.02 kg. mole/hr. containing small amts. of HCl, C2H3Cl3, EtCl, etc., is formed and led into an absorption column, where it is treated with 3.06 kg. mole/hr. 19.4% HCl at 87° and 26 kg. mole/hr. water at 81°; the bottom pressure is maintained at 1500 mm. and the temperature of aqueous HCl at 90°; the pressure at the top reaches 1300 mm., and 0.38 kg. mole/hr. water vapor at 81°, 0.1 kg. mole/hr. C2H4Cl2, N, and small amts. of C2H3Cl3 and EtCl are obtained at the upper end; with 5.08 kg. mole/hr. 20.5% aqueous HCl at 90° removed at the bottom. This aqueous acid is distilled at 2.5 kg./cm.2 to yield 0.02 kg. mole/hr. HCl, which is recycled, and, at the bottom, 3.06 kg. mole/hr. 19.4% aqueous HCl which is brought to 87° in a heat-exchanger and returned to the absorption column. The HCl-free product is condensed at 0° to remove water

vapor and chlorohydrocarbons, which are separated; the gaseous mixture (mostly N) is recycled.

L15 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1966:438119 CAPLUS
DN 65:38119
OREF 65:7055e-h,7056a
TI Vinyl chloride
PA Dynamit-Nobel A.-G.
SO 12 pp.
DT Patent
LA Unavailable
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	BE 666823		19660113	BE	
	FR 1440423			FR	
	NL 6509435			NL	
PRAI	DE		19640722		

AB In the preparation of H2C:CHCl from HCl and C2H2 at atmospheric pressure with HgCl2 as catalyst, increased yields and catalyst economy are obtained by diluting the feed with a recycled product fraction. By this means the temperature is regulated independently of the reactant volume and is maintained at the same range throughout the reactor so that sublimation of the catalyst from locally high temperature is avoided. The ratio of fresh feed to recycle gas is from 1:1-1:3 with the rate of feed and the degree of external cooling adjusted in such a way that the synthesis takes place at 110-70° in all areas of the reactor with an C2H2 conversion of 97 mole-% and a yield of 150-180 kg./hr./m.3 of contact mass. The process includes a means of washing the unreacted starting materials with a liquid product stream and sending them back into the reactor, whereby almost complete utilization of the HCl and C2H2 is achieved. Thus, 418 kg. 98.8% C2H2 and 595 kg. 98.8% HCl are mixed and introduced, along with 64 g. mixture (HCl 68.3, C2H2 21.1, and H2C:CHCl 10.6%) recovered from preceding operation, into a reactor charged with HgCl2 on activated C. The vapor-gas mixture leaving the reactor is split into a product stream and a recycle stream, the latter being returned via a ventilator to the reactor at such a rate as to effect the conditions specified above. The product stream containing H2C:CHCl 93.5, other chlorinated hydrocarbons 0.3, HCl 4.2, C2H2 1.3, and inert material 0.7% is cooled (35°), compressed (7 atmospheric), further cooled to condense a portion of the H2C:CHCl, and separated into a gaseous and a liquid phase. The latter, containing <50 ppm. HCl and C2H2 is cooled to -25°, and introduced into the top of a scrubbing tower where it serves to remove HCl and CH2 from the gaseous fraction which has, meanwhile, been cooled to -25° separated from condensate, and introduced at the bottom of the tower to pass counter-currently through the descending liquid fraction. The gaseous mixture (11 kg.) leaving the top of the tower consists of 500-700 ppm. HCl and C2H2, 20.5% H2C:CHCl, and 79.5% inert material. The liquid passes from the base of the tower through a heat exchanger into a separator (from which separated gases are recycled to the reactor) and then is pumped into a degassing tower where, at 6.5 atmospheric and 42-45°, the H2C:CHCl is separated from HCl and C2H2. The overhead fraction, after further removal of H2C:CHCl by return passage through the condensing and separating members of the system, constitutes the 64 kg. feed component mentioned above. The product is pumped from the base of the degassing tower into a neutralizer containing KOH and is then distilled to remove high boiling hydrocarbons.

L15 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1963:66073 CAPLUS
DN 58:66073
OREF 58:11216f-h,11217a

TI Methyl chloroform
IN Vogt, Harvey J.
PA Pittsburgh Plate Glass Co.
SO 5 pp.
DT Patent
LA Unavailable

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3065280		19621120	US 1960-56941	19600919
	GB 916407			GB	

AB Processes are disclosed for the production of MeCCl3 (I) as follows: ethylene (II) or CH2ClCH2Cl (III) was chlorinated to form CH2ClCHHCl2 (IV) and HCl; IV was dehydrochlorinated to form CH2CCl2 (V), and to V was added HCl to form I. This was accomplished by feeding 192.67 lb. Cl and 71.81 lb. II (98 mole-% II) to a quantity of III containing about 8.4% by weight of IV, and 0.06% FeCl3 at 84°. Boiling was maintained by heats of reaction to form III and IV. The vapors of III and IV were condensed and part of the condensate returned to the reactor. The remainder of the condensate distilled gave 236.16 lb./hr. III. The still bottoms, containing 1.15 III, 19.52 IV, 1.8 (CHCl2)2 (VI), and 0.52 lb. C2HCl5 per hr., were fed to another still column from which the III and IV were returned to the reactor and the bottoms forwarded to another still, from which 19.36 lb. IV with a trace of VI was distilled and forwarded to the dehydrochlorinator with 6.93 lb. NaOH per hr. as an sq. 10.5% solution with 14.5% NaCl. Steam was introduced into the dehydrochlorinator to maintain temps, ranging from 115° at the bottom to 33° at the top. NaCl, H2O, and some tars were removed from the bottom. V, which was distilled and dried, was forwarded to the hydrochlorinator at the rate of 13.44 lb./hr., with 5.3 lb. HCl from the reactor, which HCl had been cooled to 35° and compressed to 13 atmospheric to cause separation of 95% of the III and almost all of the IV present in the HCl. Hydrochlorination was conducted in liquid I containing 0.3% FeCl3, 0.09 lb. added per hr., at the b.p. of I. I (17.51 lb.) was removed from the hydrochlorinator per hr.

(FILE 'HOME' ENTERED AT 12:51:20 ON 27 OCT 2006)

FILE 'REGISTRY' ENTERED AT 12:51:42 ON 27 OCT 2006

L1	1	S	1,2-DICHLOROETHANE/CN
L2	1	S	CHLORINE/CN
L3	1	S	ETHENE/CN

FILE 'CAPLUS, CAOLD' ENTERED AT 12:52:29 ON 27 OCT 2006

L4	14590	S	L1
L5	439	S	L1 AND L2
L6	118	S	L5 AND L3
L7	70	S	L6 AND CHLORINAT?
L8	3	S	L7 AND COMPRESS?
L9	2	S	L8 AND DIRECT
L10	1	S	L8 NOT L9
L11	910	S	L4 AND HEAT
L12	146	S	L11 AND CHLORINAT?
L13	35	S	L12 AND VAPO?
L14	5	S	L13 AND COMPRESS?
L15	4	S	L14 NOT L8